

ICANN and IDN

Internet Corporation for Assigned Names and Numbers

International Domain Names

S.Maniam , Singapore maniam@i-dns.net

Introduction

The new institutional economics (NIE) asserts that institutions are the “rules of the game;” although it does address the problem of how individuals and organizations try to change the rules, it tries to maintain a sharp distinction between the rules and the players. But in many cases the organizations that operate regulatory institutions and create and enforce the rules can be considered players in the game as well. This is especially true when the regime and the organization is a new entity seeking to establish the legitimacy and universality of its regulatory scheme.

IDNs are an important but neglected topic in Internet governance studies. The original domain name system used a simplified character set based on the Roman alphabet, known as “restricted ASCII.”¹ This meant that languages that relied on non-Roman scripts, such as Arabic, Korean, Chinese, Hindi, Tamil Russian or Japanese, could not be represented as domain names. The geographic and cultural bias introduced by such a standard should be evident. It required the development of a new domain name standard based on Unicode to enable representation of Internet addresses in other language scripts.² After ten years of agitation by advocates of non- Roman scripts, it is now possible to have domain names in any alphabet. These are known as internationalized domain names or IDNs. ICANN has (finally) announced its willingness and readiness to distribute IDN top level domains in 2007.³ As this happens, Internet users will witness a striking transition from Internet domain names, URLs and email addresses based on ASCII characters to character sets that include all the world’s language scripts.

The creation of IDN top level domains (TLDs) has the potential to open up large new markets for the domain name registration services industry. Although it is currently based on a character set that the majority of the world either cannot read or does not use naturally, ASCII- based domain name registration services already command around \$3 - \$4 billion in annual revenues; the number of registrations (not the revenue) has been growing at a rate of about 7 –10% annually

This paper examines contention over IDN policy among ICANN, the gTLD interests and the ccTLD interests. As noted above, we try to explain ICANN management’s choice of policies in terms of a bargaining perspective. Our analysis emphasizes how the policies regarding new IDN top level domains produced by ICANN are strongly influenced by a calculus reflecting its organizational self-interest, and specifically its desire to gain economic and political forms of support from countries outside the United States.

What Needs to be Done -

a. One particularly important aspect of ICANN's launch of new generic top-level domains (gTLDs) will be the availability of Internationalized Domain Names (IDNs) at the top level. That eagerly anticipated enhancement to Internet participation has also raised some issues.

For example, current practice dictates that gTLDs contain at least three characters – two-character Latin gTLDs are reserved for country-code top-level domains (ccTLDs). However, in certain languages one or two characters commonly express a complete word – and they would not be confused with present-day ccTLDs.

b. Prohibiting the registration of names of less than three characters in certain languages may hobble IDN use in certain languages but it is difficult to fashion a uniform set of rules to govern a potential relaxation of this requirement that works universally. ICANN's approach to this issue is similar to its approach on many issues regarding implementation of the policy for the introduction of new gTLDs.

c. Get expert advice on the matter. The use of experts allows ICANN to obtain experience and skill economically outside its core competencies and develop material for public discussion in a timely manner.

d. Use that advice to formulate some sort of model.

e. Then conduct public discussion on the issue

This process has been used effectively thus far in the new gTLD implementation. ICANN has consulted with: technical, DNS, risk management and linguistic experts, dispute resolution providers, and others. In this case of character limits and IDNs, ICANN is engaging a small team to evaluate this problem and provide expert advice from both sides of the problem: that IDNs must be effectively engender regional participation and that the rules must provide stability, i.e., that the domain name system (DNS) work in a way predictable to users.

Again, that process for reaching implementation: identify issues, get expert advice, create a model for public discussion, discuss, iterate the model, and so on.

The idea is that the experts crystallise the discussion in a timely way and therefore encourage meaningful participation. We are at step number two of this process that will include all interested parties. The process for developing a preliminary set of assumption will be publicly reported so the ensuing public discussion can be informed and timely. Everyone at ICANN appreciates the comments made on this particular issue and other IDN issues – all going toward an effective way to increase effective regional participation in the Internet.

Implementation Update:

- a) DNS Stability Panel: Interisle has been contracted to form the DNS Stability Panel that conducts the technical string requirement evaluations for requested IDN ccTLDs. This includes a verification that the delegations of new TLD strings will not result in user confusion with any existing strings in the DNS. Interisle is currently in the process of forming the DNS Stability Panel for Fast Track Process String Evaluation and providing on-boarding material to panel members.
- b) Online Request System: the online system through which IDN ccTLD requests will be submitted is in the final stages of development and testing. The next three weeks will be used:
 - a. finalize the online content
 - b. perform a legal review
 - c. undertake a live test. As part of the live test ICANN has consulted with representatives of five countries and invited them to participate in testing of the system. Testing includes: submitting a test request in the system, processing / qualification by staff, providing feedback on the test to participants. These tests will run from the end of September through 9 October after which a new status report of overall Fast Track implementation will be released.
- c) Online IDN area: the IDN area online will be revised with an FAQ, factsheets, and a manual reference for use of the online request system. The new and improved site will be released prior to the Fast Track Process launch time.

Linguistic Processes: there are a few aspects of the Fast Track Process that are related to linguists or require the advice or statements from experts in writing systems. An important piece of this relates to the requested string(s) as a meaningful representation of a country or territory name. UNGEGN has agreed to support Fast Track participants as needed with referrals to such expertise. The referrals will be provided through an ICANN point of contact and the method for requesting such expertise will be described in the proposed Final Implementation Plan. ICANN plans to support to those requiring linguistic assistance.

Outstanding issues: several topics that has been discussed in public comment on implementation proposals of the Fast Track Process since the initial draft implementation plan was released on 23 October 2008. These include: (i) the form of relationship between an IDN ccTLD manager and ICANN, (ii) cost considerations regarding contribution to processing and TLD support costs, (iii) management of variant TLDs. Solutions to these issues have been discussed, and it is believed that current opinions or positions of each community segment is well understood.

INFITT and ICANN

In various ICANN meetings on IDN language has been the main area of concern and expertise is essential. These are the following areas on which INFITT could offer:-

- i) Dealing with variant issues in Tamil
- ii) Selection of TLDs (Both GTLDs and CCTLDs)– to ensure there misconception
- iii) Coordination on any recommended restrictions on names registered across several Tamil speaking countries/diasporas Spoofing

INFITT could be the catalyst to ICANN on IDN issues. This will be a precedent for others like Arabic , Cyrillic or Chinese organizations for their contribution to ICANN. Organisation such as INFITT which has representation from Europe to USA has the global representation in its activities thus making the best agency to offer linguistic expertise to Internet Organisations.

Conclusion

This paper analyzed how ICANN's policy response to the problem of introducing IDNs between ccTLD registries and gTLD registries. As the result of adopting an IDN fast track for country code registries, country code registries will be able to offer multilingual domain names earlier than gTLDs, assuming that ICANN and each country are able to reach consensus on the details of an IDN ccTLD contract.

While the current IDN market is a lot smaller than the ASCII market, this is due to the lack of IDN top level domains, which limits IDN names to the second-level. This restricts service to an inconvenient, hybrid combination of ASCII and other scripts. The full IDN service enabled by the new IETF standard and new IDN top level domains will probably realize the earlier, high expectations regarding strong demand for IDNs in those parts of the world that use non-Latin scripts. The size of the current domain name market could easily double or triple once IDN TLDs are introduced. Because of the high switching costs associated with domain name registrations, whoever enters this market first will get the lion's share of the market in any given language group like .COM.

Both ccTLDs and gTLDs want to operate IDN top level domains. For both market actors, translation of their current TLD strings into IDNs is seen as the key to future growth as of 2009. ICANN does not actively respond to the efforts of the gTLD registries to extend their top level names into IDNs under the concerns expressed by some governments in such practice, while it accepts ccTLDs' claim to do so mainly because their corresponding governments support such consistency.

What accounts for this difference, the policy distinction between gTLDs and ccTLDs? In our view, the critical factor is ICANN's own organizational self-interest. ICANN has little hierarchical authority over ccTLDs and it needs to lure them into full contractual participation in its regulatory scheme if it is to solidify its position as the global domain

name regulator. ICANN also has a longstanding problem with its legitimacy and support among national governments outside the United States. Because national governments strongly support privileged access to resources for their own country as fundamental rights, and in particular want to support the market position of their own national registry against the (mostly U.S.-centered) gTLD operators, ICANN can please national governments by doling out new IDN top level domains to their ccTLDs. By doing so, ICANN shows that it can deliver benefits to national governments. Some national governments (e.g., China India or Korea) try to be careful about the use of “their” language script in the domain name space. Here again, ICANN may garner support from countries that have been reluctant participants or non participants (such as China) by acceding to such demands.

Ironically, under governments’ strong objection to ICANN’s IDN ccTLD contracts, this first-mover advantage ticket in the emerging IDN market, ccTLD IDN fast track, may give its opportunity to gTLD IDN fast track since gTLDs do not have such political tension with ICANN. ICANN’s strategy to enforce ICANN’s strong regulatory power over ccTLDs through IDNs will provoke the debate on role of ICANN, USG and ccTLD infrastructure management in the GAC.

References

IDN ccTLD Fast Track Process

<http://www.icann.org/en/topics/idn/fast-track/>

ICANN Meetings in Lisbon Portugal Transcript - IDN - GAC - GNSO & ccNSO Working Groups Workshop 28 March 2007

<http://www.icann.org/en/meetings/lisbon/transcript-idn-wg-28mar07.htm>

IDN ccTLD Fast Track Program Proposed Implementation Details Regarding Arrangement between ICANN and prospective IDN ccTLD Managers May 2009
<http://www.icann.org/en/topics/idn/fast-track/proposed-implementation-details-dor-29may09-en.pdf>

IDN ccTLD Fast Track Program Proposed Implementation Details Regarding Development and Use of IDN tables and Character Variants for Second and Top Level Strings (revision 1.0) May 2009

<http://www.icann.org/en/topics/idn/fast-track/proposed-implementation-details-idn-tables-revision-1-clean-29may09-en.pdf>

IDN ccTLD Fast Track Program Cost Analysis of IDN ccTLDs Focus on Program Development and Processing Costs June 2009

<http://www.icann.org/en/topics/idn/fast-track/analysis-idn-cctld-development-processing-costs-04jun09-en.pdf>